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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/865,468      | 05/29/2001  | Hisao Yasuhara       | 109375              | 3731             |

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EXAMINER

CANTELMO, GREGG

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1745

6

DATE MAILED: 01/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/865,468             | YASUHARA ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Gregg Cantelmo         | 1745                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2.5 &amp; 3</u> | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 1-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected method, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 4.
2. Applicant's election with traverse of the restriction of claims 1-12 in Paper No. 4 is acknowledged. The traversal is on the ground(s) that there is no serious burden on the search. This is not found persuasive because it is shown that the classification of the method and apparatus are distinct from one another. The search for the apparatus does not require a search in the process.

Furthermore the apparatus of claims 13-17 can be used in various processes such as sputter coating, ion beam sputtering, laser ablation, etch and is not limited to a sputter etching process as recited in claims 1-12.

Applicant further argues that a proper search for the claims of Group I would require a search of the claims of Group II, since the references drawn to the method of Group I would be expected to describe the apparatus of Group II. This argument appears to be Applicant's interpretation and fails to show any mandatory requirement for searching apparatus class and subclass for method claims. Additionally, even if such an argument were proven, Applicant has elected the apparatus claims and not the method. The process therefore has been withdrawn from consideration. Thus

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Applicant does not make the argument that a search for the elected apparatus claims of Group II must require a search of the method claims of Group I.

The requirement is still deemed proper and is therefore made FINAL.

***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

4. The information disclosure statement filed August 3, 2001 has been placed in the application file and the information referred to therein has been considered as to the merits.

5. The information disclosure statement filed December 27, 2001 has been placed in the application file and the information referred to therein has been considered as to the merits.

***Drawings***

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: reference character "28" in Figs. 1 and 2 does not appear to be in the written disclosure of the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply

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to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 61284573 A (JP '573).

JP '573 discloses an apparatus comprising: a cathode 1 for holding a sample 4, anodes 5 arranged to counter the cathode 1, a chamber (inherent) wherein the anodes 5, cathode 1 and sample 4 (which is ferromagnetic and thus metallic) are located under an inert gas atmosphere, a cooling device for cooling the anodes, in particular water cooling (abstract and Fig. 3 as applied to claim 13).

A plurality of anodes 5 are arranged to counter the cathode 1 and the anodes are water-cooled and thus are cooled by the cooling device (abstract and Fig. 3 as applied to claim 14).

Note that certain descriptive terms in claims 13 and 14 have not been accorded patentable weight. The term pretreatment does not further define any structure to the apparatus or to the chamber. With respect to the preamble, the intended use, for

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element analysis of a metal sample does not further define any structure to the apparatus and is not accorded patentable weight.

Also with respect to the term "counter", the Examiner has interpreted this in terms of opposing polarity of the cathode and anodes and not to a particular positional relationship of the cathode and anodes. Thus the opposing charges of these electrodes "counter" each other.

9. Claims 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 3,779,885 (Labedan).

Labedan discloses an apparatus comprising: an anode carriage 3, 3' (col. 3, ll. 7-9 and col. 4, ll. 17-22) for holding metallic samples 2, 2' (sample, col. 4, ll. 13-14), cathodes 6' and 7' arranged to counter the anode carriage, a chamber 1 wherein the anode carriage, cathodes and metallic substrate are located under an rarefied (inert) gas atmosphere (col. 2, ll. 44-45), a cooling device 11' and 12' for cooling at least one of the cathodes 6' and 7' (Fig. 2 as applied to claim 15).

A plurality of cathodes 6' and 7' are arranged to counter the anode carriage and the cooling device cools the cathodes (Fig. 2 as applied to claim 16).

Note that certain descriptive terms in claims 13 and 14 have not been accorded patentable weight. The term pretreatment does not further define any structure to the apparatus or to the chamber. With respect to the preamble, the intended use, for element analysis of a metal sample does not further define any structure to the apparatus and is not accorded patentable weight.

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Also with respect to the term "counter", the Examiner has interpreted this in terms of opposing polarity of the cathodes and anode and not to a particular positional relationship of the cathodes and anode. Thus the opposing charges of these electrodes "counter" each other.

10. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 3,664,942 (Havas).

Havas discloses an apparatus comprising: means for removing contaminants on the surface of a metal sample 17 (Cr-Ag-Cr), means 11 for cooling the cathode 5 (Fig. 1, col. 2, ll. 69-71). The ionized plasma in the apparatus constitutes means for sputtering which can effectively remove metal sample material as well as any contaminants on the sample 17.

Note that certain descriptive terms in claim 17 have not been accorded patentable weight. The term pretreatment does not further define any structure to the apparatus or to the chamber. With respect to the preamble, the intended use, for element analysis of a metal sample does not further define any structure to the apparatus and is not accorded patentable weight.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (703) 305-0635. The examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the

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examiner's supervisor, Pat Ryan, can be reached on (703) 308-2383. FAX communications should be sent to the appropriate FAX number: (703) 872-9311 for After Final Responses only; (703) 872-9310 for all other responses. FAXES received after 4 p.m. will not be processed until the following business day. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gregg Cantelmo  
Patent Examiner  
Art Unit 1745

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January 8, 2003